# Spidron Domain
The Expanding Spidron Universe

Dániel Erdély & Marc Pelletier
H-1015 Budapest, Battyany str. 31. I./12.
email: edan@spidron.hu   www.spidron.hu

Abstract

A number of new discoveries have been made since the last Bridges conference in the area of Spidron research. Shown here are samples of what will be presented in London.

## 1. Two Dimensions & 2.5 Dimensional Reliefs

Spidron versions of the Penrose-Richert tiles have been discovered, as well as a negative space partner to the classic spidron diamond. Two more reliefs based on semi-regular tilings were also discovered, one based on the tiling of squares and octagons and the other based on tiling of squares, hexagons and dodecagons.
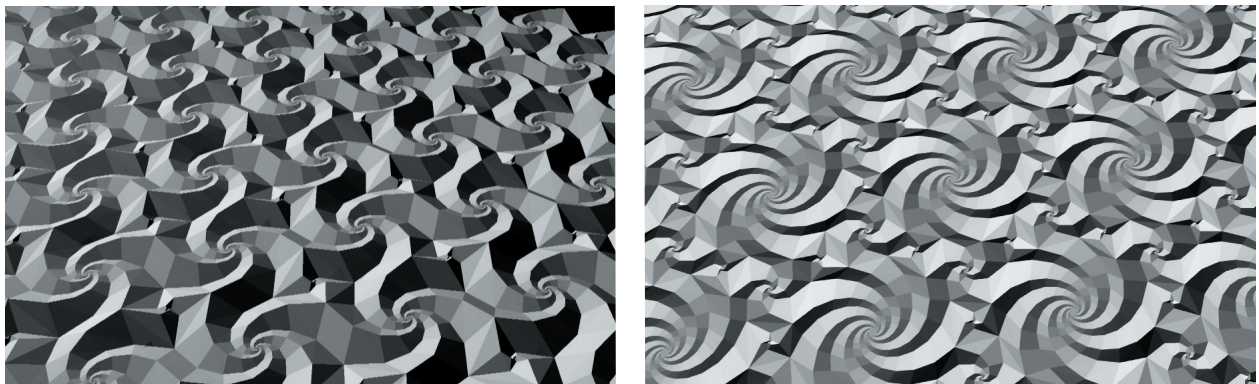
Figures 1 and 2: *Two new semiregular Spidron reliefs*

2. The Splatonic Solids and the Archimedians

In addition to the already known Tetra-Spidro ball and the Octa-Spidro ball, there are three other solids corresponding to the Platonics. Also there are 10 other semiregular Spidron solids. A number of linkage puzzles have been discovered from these shapes.
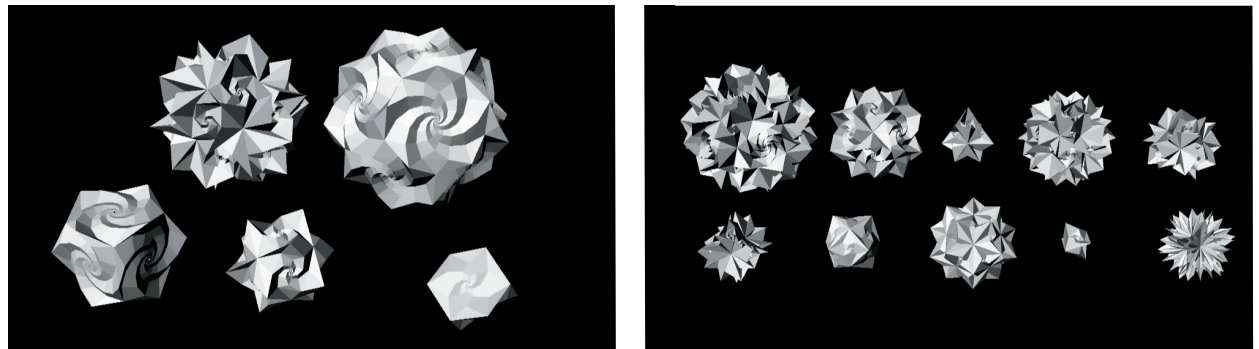
Figures 3 and 4: *The Splatonics (left), and two Archimedians and eight Quasi-Archemedians (right)*

3. Platonic Disections and Prism Towers

The Platonic solids can be dissected along skew polygons and we've found a family of prisms and towers.
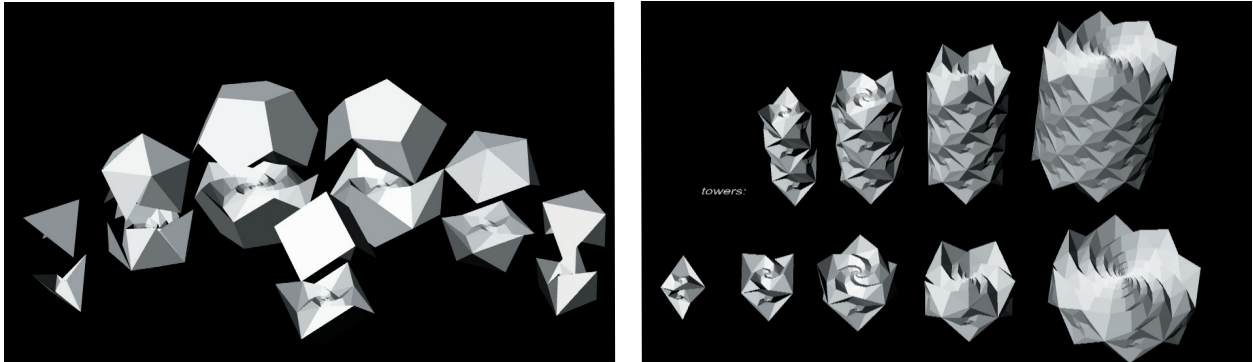
Figures 5 and 6: *Platonic dissections (left) and Prism towers (right)*

4. Non-Periodic Spidron Networks

The A6 and O6 rhombohedra can be used as building blocks for non-periodic arrangements of Spridron nests, with great potential for sculpture.
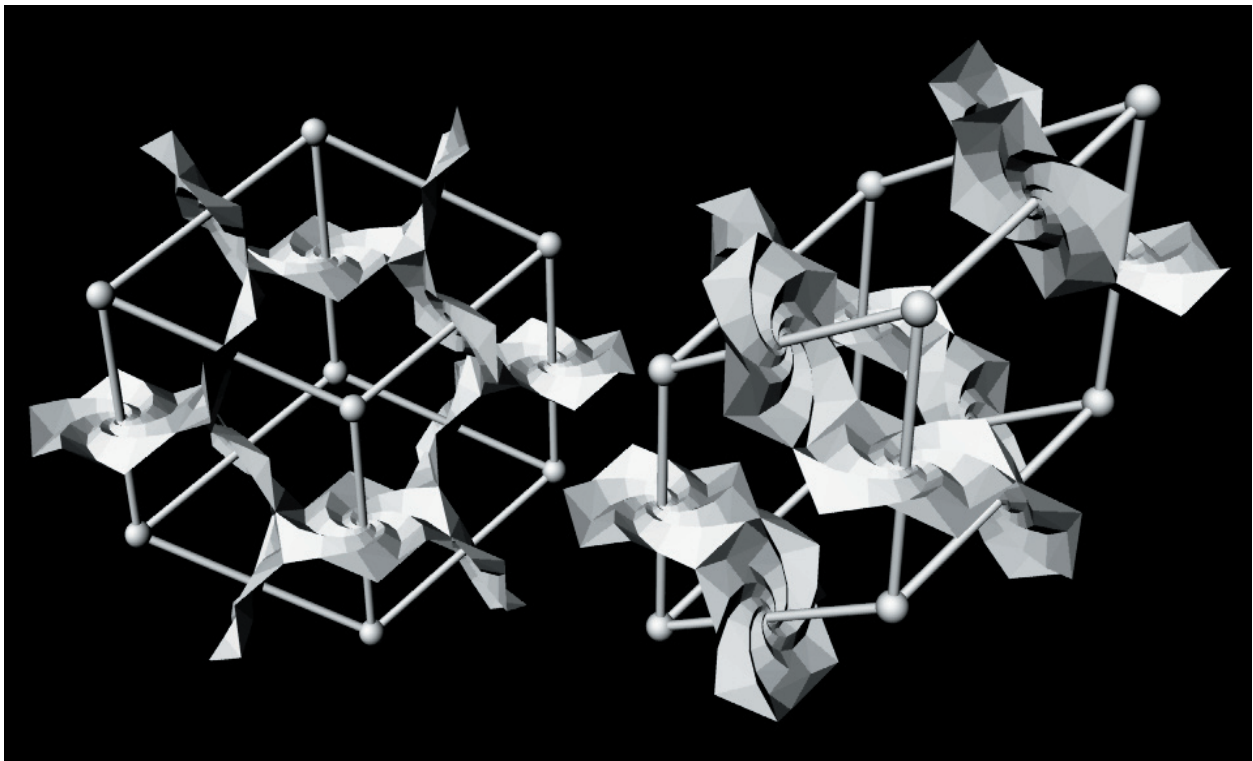

Figure 7: *The A6 and O6 building blocks*

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For more about Spidrons, refer to D. Erdély, *Some Surprising New Properties of Spidrons*, Renaissance Bridges Proceedings (2005) p. 179-186